Orayvi Revisited

Social Stratification in an "Egalitarian" Society

Jerrold E. Levy

with assistance from

Barbara Pepper

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Cover: Entrance to the kiva during the Hopi Snake dance, Orayvi Pueblo, ca. 1900. Photographer unknown. Courtesy The Huntington Library, San Marino, California. (Pierce 2022)

ential access" to the wealth of nature by various kin groups, with some groups remaining in possession of the original richer lands (such as river bottomlands) and others becoming progressively poorer and more helpless in peripheral areas. This economic distinction could lead in turn to differential power and a political structure based on legal force. The questions addressed in this chapter concern the genesis of Hopi social stratification, whether these strata were based on differential access to key resources, the control and management of an economic surplus, or strictly on control of ceremonial office with no concomitant economic distinctions.

We have already noted that according to Hopi tradition the village of Orayvi was first settled by the Bear clan. The senior male of this clan is the Village chief, and the clan "owns" the Soyal ceremony which takes place at the time of the winter solstice. This is the premier agricultural ceremony, and it marks the beginning of summer and the agricultural cycle. As other groups came to settle in the village, the kikmongwi assigned them farmlands, in return for which they contributed a ceremony or some ceremonial function that benefited the village as a whole. The earliest arrivals received some of the best lands and also "owned" the most important ceremonies. The last arrivals received no land at all; nor were their contributions to the ceremonial cycle very great. If tradition reflects reality, the rank of any given clan ought to be based both on the quality of the land and on the ceremony it controlled. We will first examine clan landholdings to see if clans can be ranked according to the quality of their assigned lands. (It is not possible, at this late date, to determine accurately the *size* of clan holdings in 1900.) Second, we will consider the ceremonial status of the clans and the extent to which the land ranking corresponds to the ceremonial ranking. And finally, the possible consequences of an inequitable distribution of the land will be evaluated.

Clan Land Holdings

Hopi corn requires a growing season of from 115 to 130 days, depending on when and where it is planted. The main corn crop is planted between mid-May and mid-June. The last killing frost usually occurs around mid-May, and the first frost of autumn at the end of September.

Corn is planted 10 to 12 inches from the surface, so germination is dependent on moisture from the snowmelt held in the subsoil and not on chance showers. Since summer rainfall comes in a series of thunderstorms occurring irregularly from place to place, fields that depend on local runoff are more drought prone than are fields watered by the flooding of washes that carry runoff from large areas of Black Mesa.[1]

Hopis make a distinction between *uuyi*, a plant, and *paasa*, a field. The former applies primarily to small patches of vegetables and early corn planted in the gullies at the mesa foot; the latter to the cornfields in general, but especially to those made where a watercourse, carrying runoff from higher ground, fans out on reaching the more nearly level ground of the valley floor. When speaking of clans controlling land, we are concerned with the cornfields (paasa), not with all arable lands (uuyi plots).[2]

Only two zones in the whole of the Orayvi valley are really suitable for agriculture: the fans found along tributary watercourses, *especially at their lower ends*; and the alluvial flats in the lower third of the valley over which the floodwaters of the main wash fanned out. Fields on the fans of tributary watercourses are *pisavasa*, or sand fields, referring to the thin layer of sand that covers them. They are better than the adjoining side valley slopes because of the volume of runoff that reaches them and because of the development of a special soil profile on the fans. The sand acts as a mulch to prevent evaporation, and the fertility of the loamy subsoil is renewed annually by the silt carried down in the floodwater.

Fields made on the old floodplain of the main wash were known as *nayavasa*, or "good fields." These were, by tradition, the best cornfields in the valley, and they lay in the 800 or so acres of alluvial flats below Orayvi where the floodwaters of the main wash spread out. Not only was the soil of this area quite different from the soil of the pisavasa, being a fine-textured clay where the other was a sandy loam, but it also lacked the covering of fine sand which acts as a mulch and reduces evaporation from the pisavasa fields made on the fans of tributary watercourses. Seeds planted on the alluvial plain were dependent on direct rainfall and on the floods that came down the main wash, *not* on the residual moisture held in the subsoil from the snowmelt of early spring. For this reason, and because of the greater risks of late frosts,

the nayavasa were not planted until early June. This late planting was balanced by a shorter growing period due to a more assured water supply and to the greater heat of the main valley floor.

Both pisavasa and nayavasa had their fertility renewed annually by the silt carried down in the floodwater, but the fertility of the sand dune and side valley slope fields decreases until the field must be abandoned. It cannot be reclaimed until vegetable overgrowth decays and renews the soil after a few years.

For this study, Orayvi clan landholdings were located following Bradfield (1971:50) and Titiev (1944:62), and clan-owned lands were assigned a score according to their quality:

1. The highest score, 4, was given to lands on the upper half of the floodplain. "In the old days, the best land lay at the top of the old floodplain; the land at the very bottom only got water when there was a big rain up in the hills. The people used to dig banks and shallow ditches to spread the flood water; this had to be done each year, as the banks got washed away" (Bradfield 1971:51). In effect, the upper part of the floodplain that belonged to Bear clan was flooded every year even when the mesas themselves received little or no rain. The lower portion, although it may not have been directly flooded, could still be watered by digging ditches. The floodplain extended for about two miles downstream from the point where the wash debouched onto the plain. Just how far down the plain the waters would reach during dry years is not known, however; nor is the exact extent of the Bear clan lands, although Titiev's map shows Bear clan's holdings occupying the upper half of the plain. The wash received about 25 percent of the runoff from all of Black Mesa, so these fields received water every year regardless of drought conditions.
2. The fields of the lower half of the floodplain were assigned a score of 3 because ditches often had to be dug to get the water to them. It is not clear, however, that these fields were ever entirely without water, and for purposes of analysis these two best scores (3 and 4) are considered as one.
3. A score of 2 was given to fields on the alluvial fans of the tributary watercourses. Although these fields were renewed annually and

did not need to lie fallow, they only received local rainfall and so were more drought prone than the fields on the floodplain.

4. A score of 1 was assigned to fields along the upper reaches of the tributary watercourses without fans and to those directly on the side valley slopes or sand dunes. All of these were entirely dependent on local rainfall; they also had to lie fallow every few years.
5. Clans for which no assigned land could be identified were scored as 0.
6. A score of 1 was added to the scores of those clans whose prime lineages were given a plot of Bear clan land for their service in the Soyal ceremony (fig. 2; appendix A).[3]

There was a large tract of "free land" on which any individual, with the Village chief's consent, could lay out a farm. There were also many areas on the side valley slopes and upper reaches of tributary watercourses where small fields could be located. These fields provided land of the poorest quality to members of clans without traditional lands, and they served as a safety valve for clans whose populations had grown too large for the carrying capacity of the traditional lands.

Bradfield estimated that there was an annual requirement *for all purposes* of about 24 bushels of corn per person, 12 of which were for consumption and the rest for seed, storage, and barter. Two acres per person were required to yield this amount. In addition, the acreage planted for vegetables (beans, melons, and squash) required another .5 acres per person. A household of five to six persons would need about 12 acres to support itself, and a typical matrilineage is likely to have controlled some 40 to 60 acres (Bradfield 1971:22).[4]

Before burros came into extensive use during the latter half of the nineteenth century, the effective farmlands of the village came to approximately 1,800 acres in the lower third of the valley, with a carrying capacity of 720 individuals. According to Bradfield, fields had to lie within 4 to 4.5 miles of the village. Beyond this point, the time required to transport the dried cobs from field to village would have carried the harvest into November, when the first winter rains would spoil the crop. After burros were introduced, an additional 600 or so acres farther up the valley were cleared. The population expanded, in part through

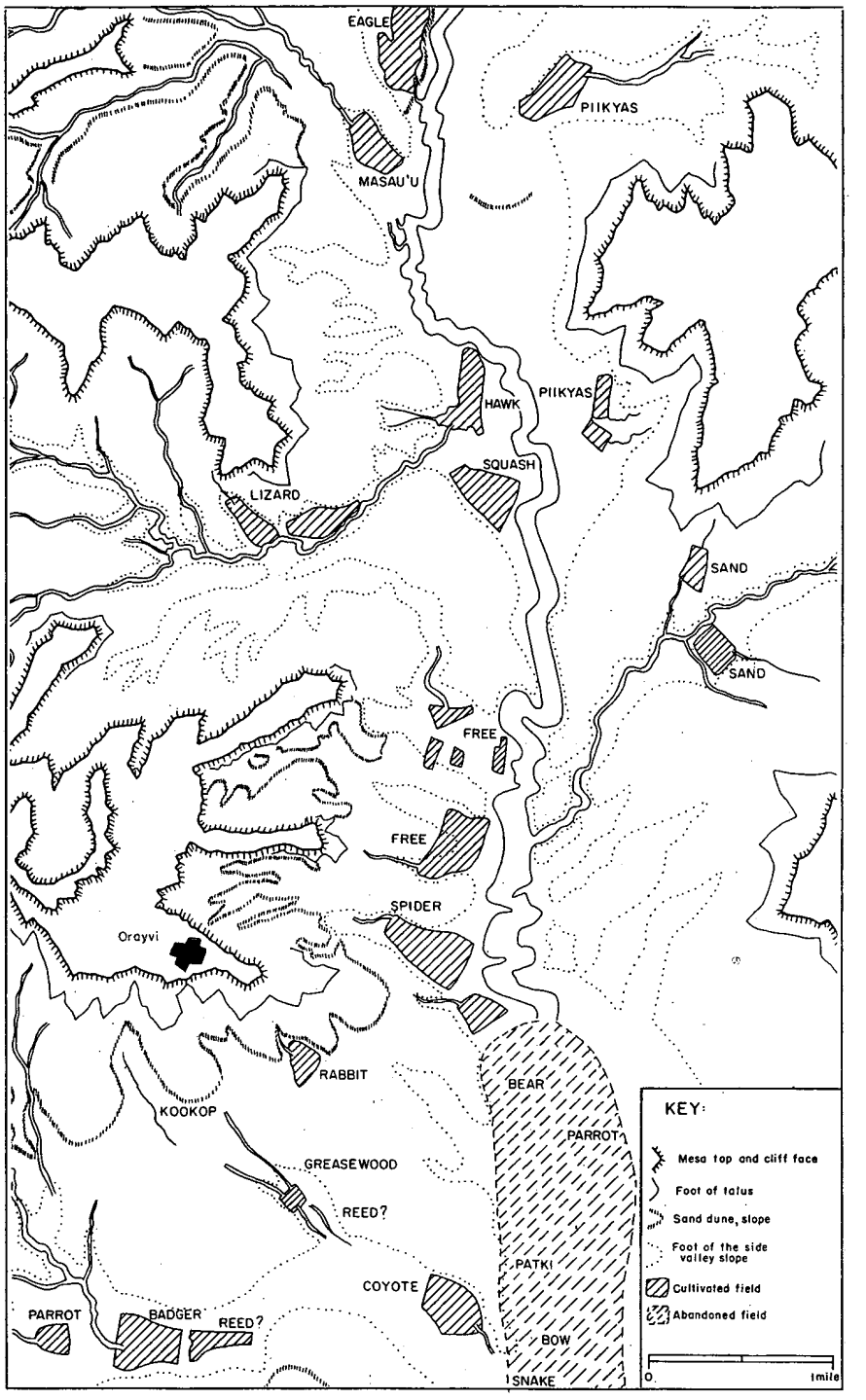

Figure 2. Orayvi clan lands. (After Bradfield 1971; Titiev 1944)

immigration, reaching between 860 and 900 by the end of the century. Whether or not the population of the village in 1900 exceeded the carrying capacity of the land will be discussed in the context of the Orayvi split; it is enough to say here that a total of 2,560 acres were being cultivated by the Orayvis at the turn of the century. Fields at an even greater distance, such as those at Munqapi and Paaqavi, are not included in the total. The acreage available at Orayvi would have accommodated a population of around 1,000 if all of it were used for food crops.

Five, possibly six, clans with a total population of about 100 people had fields on the floodplain. In addition, the prime lineages of another four clans (40–60 people?) were given plots of Bear clan land in return for their services in the Soyal ceremony. The 858 acres on the floodplain would have provided over 5 acres per person, twice the amount required for subsistence. The remaining 1,700 acres were farmed by 728 people with a per-person allotment of 2.33 acres—an amount barely sufficient for survival. There is no ethnographic evidence to suggest the existence of any formal mechanism by which families shared resources with unrelated families. In the memory of older Hopis, "every drop of water was precious, and there was never enough. . . . You never asked for a drink when visiting at a neighbor's house but went home to drink from your own water. . . . Every family was on its own. Even if a Chief had a lot of corn he would not share it" (Sekaquaptewa 1969: 21–22, 44).

Hegmon (1989) has modeled survival strategies for Hopi households and found that a system of restricted sharing among a small number of households (generally the size of a lineage) was consistently the best strategy, involving the lowest risk of failing to fulfill a household's needs for corn.[5] The restricted amount of gifting at naming ceremonies and various public ceremonies would not have been sufficient to serve as a redistributing mechanism. On the face of it, these land-rich clans and the prime lineages of the four clans receiving Bear clan allotments would seem to have had enough land on which to grow cotton and surplus crops for barter with the Navajos for sheep. The Hopis, however, view their classes of commoners and powerful people as based on ceremonial criteria and not on economic well-being, and the question arises whether the one is derived from the other.